TRANSMITTAL OF APPEAL BRIEF (Large Entity)	Docket No. 02110051AA

In Re Application Of: **T. Numa**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/994,795	November 28, 2001	H. X. Vo	30743	2655	8391

Invention: **DATA INPUT/OUTPUT METHOD AND SYSTEM WITHOUT BEING NOTIFIED**

COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on **July 12, 2005**

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Dated: **September 12, 2005**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re patent application of T. Numa
Serial No. 09/994,795
Filed: November 28, 2001

Group Art Unit 2655
Examiner: Vo, Huyen X.

For: ***DATA INPUT/OUTPUT METHOD AND SYSTEM WITHOUT BEING NOTIFIED***[1]

MAIL STOP APPEAL BRIEF
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPELLANTS' BRIEF UNDER 37 C.F.R. § 41.37

In response to the action of the Primary Examiner in finally rejecting claims 1-20 of this application, a Notice of Appeal was timely filed July 12, 2005. This brief, which is filed herewith in triplicate, is in furtherance of the Notice of Appeal.

This brief contains these items under the following headings and in the order set forth below, as required under 37 C.F.R. § 41.37:

I. REAL PARTY IN INTEREST
II. RELATED APPEALS AND INTERFERENCES
III. STATUS OF CLAIMS
IV. STATUS OF AMENDMENTS
V. SUMMARY OF CLAIMED SUBJECT MATTER
VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

[1]That is, without being noticed (by other persons).

VII. ARGUMENTS

☐ ARGUMENT VIIA. REJECTIONS UNDER 35 U.S.C. §112, FIRST PARAGRAPH

☐ ARGUMENT VIIB. REJECTIONS UNDER 35 U.S.C. §112, SECOND PARAGRAPH

☐ ARGUMENT VIIC. REJECTIONS UNDER 35 U.S.C. §102

☑ ARGUMENT VIID. REJECTIONS UNDER 35 U.S.C. §103

☐ ARGUMENT VIIE. REJECTION OTHER THAN 35 U.S.C. §§102, 103 AND 112

VIII. CLAIMS APPENDIX

IX. EVIDENCE APPENDIX

X. RELATED PROCEEDINGS APPENDIX

I. REAL PARTY IN INTEREST

The real party in interest in the appeal is:

☐ the party named in the caption of this brief.

☑ the following party:

NEC Corporation of Japan.

II. RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal:

☑ there are no such appeals or interferences.

☐ these are as follows:

III. STATUS OF CLAIMS

The status of the claims in this application is as follows:

A. Total number of claims in Application

The claims in the application are: Claims 1-20, totaling 20 claims

B. Status of all the claims:

1. Claims cancelled: None
2. Claims withdrawn from consideration but not cancelled: None
3. Claims pending: Claims 1-20
4. Claims allowed: None
5. Claims rejected: Claims 1-20
6. Claims objected to: None

C. Claims on Appeal.

The claims on appeal are: Claims 1-20

IV. STATUS OF AMENDMENTS

The status of amendments filed subsequent to the final rejection is as follows: There is an after-final amendment to Claim 1 of a non-substantive nature. The Examiner in the Advisory Action or otherwise has not yet indicated the status of the amendment.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The claimed invention, defined in independent claims 1, 7, 13, 14 and 19, and in dependent claims 2-6, 8-12, 15-18 and 20, is directed to new uses of a bone conduction microphone to operate a computer without needing a normal speaking voice. The present invention relates to a data processing system using bone conduction technology, and in particular to data input/ output and data processing systems.[2]

Bone conduction microphones previously were known for certain uses. See, e.g., Japanese Patent Application Unexamined Publication No. 10-228367[3]; U.S. Patent 6,456,721 to Fukuda ("Fukuda"). In the '367 Japanese Patent Application, a data transmission terminal is connected to a bone conduction microphone and further to a server. The bone conduction microphone is mounted in the operator's ear and picks up voice data to output it to the data transmission terminal. The data transmission terminal has a voice recognition function and recognizes predetermined words from input voice data. In this manner, the operator can operate the data transmission terminal by voice control without touching it. The operator is notified of various instructions from the data transmission terminal through the earphone mounted in the operator's ear.

The present inventor has found that he can use bone conduction technology to operate a computer based on non-vocal human-generated sounds. By using bone conduction technology, silent computer operation is possible which previously was not possible using conventional voice recognition systems which necessarily rely on the vibrations associated with the non-silent human speaking voice.

For example, in one embodiment, the invention is a voice-less method for inputting an instruction to operate a computer, using a bone conduction microphone (*see, e.g.,* 11 in Applicants' Fig. 1); for picking up a sound produced in an oral cavity of a user. (Appealed Claim 1.) In this method of inputting an instruction to operate a computer, the four steps are as follows:

a) retrievably storing a plurality of registered sounds (*see, e.g.*, middle column of

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[2]Applicant's specification, page 1, lines 2-5.

[3]Applicant's specification, page 1, lines 8+.

Fig. 3) in a memory (*see, e.g.*, 13 in Fig. 1; specification, page 9, line 4), each of the registered sounds corresponding to a different instruction (*see, e.g.,* specification, page 9, line 23 - page 12, line 8);

b) inputting an input sound through the bone conduction microphone (*see, e.g.*, 11 in Fig. 1; specification, page 9, lines 10-14), wherein the bone conduction microphone has picked up the sound produced in the oral cavity of the user (*see, e.g.,* specification, page 12, lines 10-11);

c) searching (*see, e.g.*, S41 in Fig. 4) the memory for an instruction using the input sound as a key (*see, e.g.,* specification, page 12, lines 12+);

d) determining the instruction to operate the computer (*see, e.g.,* specification, page 13, lines 13-20); wherein the user may operate the computer without using voices. (Appealed Claim 1, emphasis added.)

Such an inventive method of voicelessly operating a computer is highly useful in certain situations, such as where the user is in a situation in which he cannot safely speak aloud without being heard, and/or cannot summon help in a traditional manner. The invention also may be expressed as a system for determining an instruction to operate a computer. (Appealed Claim 7.) The system has three components: a bone conduction microphone (*see* 11 in Fig. 7); a database (*see* 78 in Fig. 7); and a processor (*see* 74 in Fig. 7). (Claim 7.) The bone conduction microphone for picking up a sound produced in an oral cavity of a user is mounted on the user's head. The database is for retrievably storing a plurality of registered sounds. Each of the registered sounds corresponds to a different instruction. (*See, e.g.,* Fig. 3.) The processor's controlling operation is such that, when inputting an input sound through the bone conduction microphone, the database is searched for an instruction corresponding to the input sound. The input sound may not be of voices. When the instruction is found, an operation corresponding to the instruction is performed. (Claim 7.)

The invention also may be expressed as a system including two main components: an input/output device (*see* 50 in Fig. 5; 70 in Fig. 7 and specification, page 17, line 22) and a main processing device (*see* 60 in Fig. 5; 80 in Fig. 7 and specification, page 17, line 23), which are separated. (Claims 13, 14.) The input/output device (*see* 50 in Fig. 5;

70 in Fig. 7 and specification, page 17, line 22) has at least a bone conduction microphone (*see* 11 in Figs. 5, 7) (mounted on the user's head) and a first wireless communication section (*see* 55 in Fig. 5; 75 in Fig. 7) for communicating with the main processing device (*see* 60 in Fig. 5; 80 in Fig. 7 and specification, page 17, line 23). (Claims 13, 14.)

Also, the invention may be expressed as an input/output device (*see* 70 in Fig. 7 and specification, page 17, line 22) having at least four components: a bone conduction microphone (*see* 11 in Fig. 7), a database (see 78 in Fig. 7), a processor (see 74 in Fig. 7) and an interface to an external information processing device. (Appealed Claim 19.) The bone conduction microphone (see 11 in Fig. 7) (for picking up a sound produced in an oral cavity of a user) is mounted on the user's head. (Claim 19.) The database (see 78 in Fig. 7) retrievably stores a plurality of registered sounds (each corresponding to a different instruction). (Claim 19.) The processor (see 74 in Fig. 7) operates to control such that, when inputting an input sound from the bone conduction microphone (see 11 in Fig. 7), the database (see 78 in Fig. 7) is searched for an instruction corresponding to the input sound. (Claim 19.) The interface to an external information processing device is for sending the instruction to the external information processing device. (Claim 19.)

In all of these embodiments of the invention, a new use is being made of bone conduction technology. Namely, a bone conduction microphone is being used to pick up a sound produced in an oral cavity of a user and a computer is thereby operated without using voices.

Examples of "sounds" permissibly used in the invention are teeth-clicking (*see* Fig. 3) and tongue-moving. (Claim 4.) The "sounds" used in the invention (*see, e.g.,* Fig. 3) are other than normal speech.

In certain practice of the invention, very advantageously, GPS technology (*see, e.g.,* 16 in Fig. 1, 65 in Fig. 5; 85 in Fig. 7; specification, page 9, lines 19-22) may be used. (*See* dependent claims 12, 17-18.)

The main advantage and use of the invention and its various embodiments is the ability, not previously provided by any existing technology, for a user to remotely activate a computer surreptitiously, with such minimal non-voice sound as to escape notice. Civilian and non-civilian uses, especially by captured persons, may be appreciated.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues presented in this Appeal are:

Whether Claims **1**-6, **7** and 9-10 are obvious over a combination of U.S. Patent 6,185,537 to Oh et al. ("Oh") in view of U.S. patent 6,219,645 to Byers ("Byers") and U.S. patent 6,456,721 to Fukuda ("Fukuda");[4]

Whether Claims 11-12 are obvious over a combination of Oh and U.S. patent 5,790,974 to Tognazzini ("Tognazzini");

Whether Claim **13** is obvious over a combination of U.S. patent 6,018,708 to Dahan ("Dahan") and Fukuda;

Whether Claims 15 and 17 are obvious over a combination of Dahan, Fukuda, and Tognazzini;

Whether Claims **14** and **19**-20 are obvious over a combination of U.S. patent 5,199,080 to Kimura et al. ("Kimura") and Fukuda; and,

Whether Claims 16 and 18 are obvious over a combination of Kimura, Fukuda, and Tognazzini.

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[4]Independent claims are indicated on this page in bold-face type.

ARGUMENT VIIA. REJECTIONS UNDER 35 U.S.C. §112, FIRST PARAGRAPH

There are no rejections under 35 U.S.C. §112, first paragraph.

ARGUMENT VIIB. REJECTIONS UNDER 35 U.S.C. §112, SECOND PARAGRAPH

There are no rejections under 35 U.S.C. §112, second paragraph.

ARGUMENT VIIC. REJECTIONS UNDER 35 U.S.C. §102

There are no rejections under 35 U.S.C. §102.

ARGUMENT VIID. REJECTIONS UNDER 35 U.S.C. §103

The Prior Art

Pursuant to an Office Action dated April 14, 2005, (the "Final Rejection"), claims 1-20 were erroneously rejected under 35 U.S.C. §103 as unpatentable over a combination of various U.S. patents. Three U.S. patents were cited as primary references: Oh, Dahan, and Kimura. Additionally, three further U.S. patents were cited as secondary references: Byers, Tognazzini and Fukuda. Applicants respectfully submit that claims 1-20 are not obvious over the various combinations put forth by the Examiner, because, among other considerations, none of the references shows or suggests using bone conduction technology for operation of a computer without needing a spoken voice.

None of the primary references cited (Oh et al.; Dahan; Kimura) discloses a bone conduction microphone. No reference of record discloses use of a bone conductive microphone for voice- or sound-activated operation of a computer. Use of bone conductive microphone for operation of a computer is an inventive concept, only now provided in this specification by Applicant. A person of ordinary skill in the art at the time of Applicant's invention lacked the knowledge or teaching of using a bone conductive microphone for operation of a computer.

Oh

Oh et al. has been cited as a primary reference. The Oh patent has as its main objective a hands-free audio memo system, with the emphasis being on a hands-free feature, such as for use while driving an automobile. As the Examiner admits, the Oh et al. patent fails to teach or disclose using a bone conduction microphone. Oh et al. rely on voice input at a sufficiently loud level to be picked up by a normal microphone. Oh et al. fail to disclose a user operating a computer surreptitiously, without using recognizable sound apparent to others in the vicinity. Oh et al. necessarily assumes that the sound emanated by the user is loud enough and recognizable enough to be input via a normal microphone at a distance from the speaker.

Dahan

Dahan has been cited as another primary reference. Dahan fails to teach or disclose using a bone conduction speaker. Dahan is a speech-recognition system based on frequently occurring word sequences. Dahan gives examples of intended use for his invention: voice-activated dialing, credit card number identification, flight information. In Dahan, a normal telephone is used. Dahan's invention concerns how the input sound sent via a normal telephone is processed and matched.

Kimura

Another primary reference is Kimura. Kimura fails to disclose a bone conduction microphone. Kimura relies on voice-operation (and not non-voice sounds) to run remote control systems.

Unexpectedly Superior Results (All Claims, All Rejections)

Compared to any of the primary references (all of which – Oh, Dahan, and Kimura – lack the disclosure of a bone-conduction microphone), the presently claimed invention provides unexpectedly superior results. Namely, in the presently claimed invention, a user can surreptitiously and discretely activate a computer. In Oh, Dahan, and Kimura, a user cannot do so. In Oh et al., it is impossible for a user to surreptitiously and discretely activate a computer, because the user must speak loudly enough to activate the microphone at a distance from him. In Kimura, because voice-activation is needed, a user necessarily by using his voice would attract attention. The user in Kimura would be completely dependent on access to speak into a normal telephone in a normal voice, which of course is not required in Applicant's invention. Oh et al., Dahan, and Kimura each completely lack the advantage of permitting a user to surreptitiously and discretely activate a computer. That Applicant's presently claimed invention has this property of permitting a user to surreptitiously and discretely activate a computer is evidence of nonobviousness. MPEP 716.02(a). Accordingly, none of the obviousness rejections should be permitted to stand.

The obviousness rejections are discussed further as follows.

Using a bone conduction microphone for computer operation based on sound recognition is an invention by Applicant. Even with the secondary references, a person of ordinary skill in the art would still fail to arrive at the presently claimed invention, because it would be outside his thinking to use a bone conduction microphone system for computer operation based on sound recognition input via the bone conduction microphone–that basic concept being inventive, in this specification, and completely outside what a person of ordinary skill in the art would think. Only one reference (primary or secondary) cited by the Examiner (i.e., Fukuda) even discloses a bone conduction microphone, and that reference uses a bone conduction microphone in a traditional way.

Byers

The Examiner cites Byers as a secondary reference with which the Examiner proposes Oh be modified. Byers discloses an array of two or more"ordinary" microphones disposed throughout a room. Like in Oh et al., Byers assumes that a user is making sounds loudly enough to be picked up by the normal microphones which are at a distance from the speaker. The speaker in Byers moves around the room making sounds (col. 11, line 10) to teach and set the system, and the system in operation assumes that the speaker will be at a distance from the microphones.

Tognazzini

Tognazzini discusses a system of identifying calendar schedule conflicts. Tognazzini fails to teach a bone conduction microphone.

Fukuda

Fukuda is the only reference disclosing a bone conduction microphone that the Examiner has cited, and Fukuda is very removed from the presently claimed invention. Fukuda is directed to a conspicuous-looking microphone system, for use in two-way

speech, such as would be used regularly in broadcasting, by a tech crew, or by coaching staff at a game.

Fukuda is completely without disclosure or suggestion of a bone conduction microphone being used for sound or voice activation of a computer.

Fukuda, which discloses a bone conduction microphone in a two-way speech system, fails to teach or disclose involving bone conduction technology to operate a computer. Fukuda is directed to a conspicuous-looking microphone system, for use in two-way speech, such as would be used regularly in broadcasting, by a tech crew, or by coaching staff at a game.

Fukuda is not reasonably combined with any of the other references in the manner that the Examiner proposes. Fukuda uses bone conduction microphones, which are quite different from the microphones used in the other references (Oh, Byers, etc.) which operate at a distance from the user. There is a body of technology that has developed for bone conduction microphones. All of the obviousness rejections that rely on Fukuda cannot stand because of Fukuda's bone conduction technology not being properly combined with the other references which are non-bone conduction technology.

Fukuda merely teaches a particular bone conduction microphone. Fukuda fails to teach or disclose substituting a bone conduction microphone for other kinds of microphones. Fukuda fails to teach or disclose any sort of interchangeability of a bone conduction microphone for any other microphone in any other system besides the two-way communication headset system Fukuda disclosed. A person of ordinary skill in the art would not make such a purported interchange of a bone conduction microphone in non-bone conduction references because he would be operating on the basic knowledge that the bone conduction microphone needs to be near the user's bone through which the vocal vibrations are traveling in order to work.

For instance, the Examiner's purported modification of Oh based on Byers and Fukuda would render Oh inoperable. If the bone conduction microphone of Fukuda were substituted, as the Examiner proposes, for the microphone in Oh's system, the bone conduction microphone would be too far away to properly pick up the vibrations from the

user (who also is operating his automobile which would only complicate the problem).

The Examiner in the Advisory Action writes that "Oh et al. fail to teach that the input is a sound command (e.g. whistles or teeth-clicking) rather than speech. However, Byers teaches a sound recognition system. Both Oh et al. and Byers still fail to disclose a bone conduction microphone for receiving input sound commands. However, Fukuda teaches a bone conduction microphone for receiving input signal." The Examiner's conclusion, which Appellant respectfully submits is incorrect, is that "With these pieces of available information, one of ordinary skill in the art would have been able to modify/combine Oh et al., Byers, and Fukuda to obtain the claimed invention." (Advisory Action.) Namely, bone conduction microphones have quite different technical positioning requirements than normal microphones, and it is not a simple matter to interchange a bone conduction microphone for another type of microphone. A person of ordinary skill in the art would be thinking of bone conduction technology in a traditional way, as exemplified by Fukuda. The present invention in which a bone conduction microphone is used for silent non-voice operation of a computer is very much removed from the two-way speaking microphone system of Fukuda.

For example, a person of ordinary skill in Applicant's art in fact would lack motivation to attempt to modify Oh based on Fukuda, because he would lack knowledge of any prior use of bone conduction microphones in voice-activated technology and therefore could only think of bone conduction microphone technology as <u>separate</u> from voice-activated technology.

The Examiner's incorrect assumption that a person of ordinary skill in the art would treat a bone conduction microphone as interchangeable with any other microphone underlies all of the obviousness rejections.

As the Examiner says, voice-activated technology has been a well-known technology in the speech recognition art for many years. (Final Office Action, page 2.) Yet, the Examiner cites no reference in which voice-activated technology uses a bone conduction microphone. The combination of voice-activation technology and bone conduction microphone technology is simply outside the purview of a person of ordinary

skill in the art–it is a combination not seen yet in any reference. It must be considered inventive (Applicant's invention), not casually imputed to a person of ordinary skill in the art at the time of Applicant's invention.

Applicant's use of a bone conduction microphone for operating a computer system is inventive and nowhere disclosed in any art. The Examiner has not cited any reference disclosing a bone conduction microphone in any use or system even close to Applicant's present invention. Applicant's present invention of using a bone conduction microphone for surreptitious, non-voice activated operation of a computer system is inventive.

Reading any combination of the six cited references, the person of ordinary skill in the art still would not be taught the presently claimed invention. The person of ordinary skill in the art would lack the idea to use a bone conduction microphone in voice- or non-voice-sound-activated technology, because that concept is beyond the thinking of a person of ordinary skill in the art.

Also, the obviousness rejection is completely based on the Examiner's erroneous assumption that a person of ordinary skill in the art would think that a bone conduction microphone would be useable in the same circumstances as a normal microphone. That assumption is incorrect.

It is therefore respectfully submitted that the obviousness rejections pertaining to Claims 1-20 cannot be maintained.

ARGUMENT VIIE. REJECTION OTHER THAN 35 U.S.C. §§102, 103 AND 112

There are no rejections other than under 35 U.S.C. §§ 102, 103, and 112.

VIII. CLAIMS APPENDIX

The text of the claims involved in this Appeal are:

1. A method for inputting an instruction to operate a computer, using a bone conduction microphone for picking up a sound produced in an oral cavity of a user, comprising the steps of:

a) retrievably storing a plurality of registered sounds in a memory, each of the registered sounds corresponding to a different instruction;

b) inputting an input sound through the bone conduction microphone, wherein the bone conduction microphone has picked up the sound produced in the oral cavity of the user;

c) searching the memory for an instruction using the input sound as a key; and

d) determining the instruction to operate the computer; wherein the user may operate the computer without using voices.[5]

2. The method according to claim 1, wherein each of the registered sounds stored in the memory is determined by at least one predetermined unit sound which is allowed to be produced in the oral cavity of the user.

3. The method according to claim 2, wherein each of the registered sounds stored in the memory is determined by a combination of said at least one predetermined unit sound produced for a predetermined time period after a first unit sound has been produced.

4. The method according to claim 2, wherein each of the registered sounds is produced by one of teeth-clicking and tongue-moving.

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[5]The 116 amendment to Claim 1 has been included herein.

5. The method according to claim 1, wherein the step d) comprises the steps of:

d.1) checking for the instruction through a bone conduction speaker; and

d.2) when receiving no negative response through the bone conduction microphone, finally determining the instruction to operate the computer.

6. The method according to claim 1, wherein the computer has a calling function of making a call, wherein the instruction to the computer is to make a call to a predetermined destination.

7. A system for determining an instruction to operate a computer, comprising:

a bone conduction microphone for picking up a sound produced in an oral cavity of a user, wherein the bone conduction microphone is mounted on a head of a user;

a database for retrievably storing a plurality of registered sounds, each of the registered sounds corresponding to a different instruction;

a processor controlling such that, when inputting an input sound through the bone conduction microphone, the database is searched for an instruction corresponding to the input sound, wherein the input sound may not be of voices, and, when the instruction is found, an operation corresponding to the instruction is performed.

8. The system according to claim 7, further comprising:

a bone conduction speaker for producing bone conduction vibrations, wherein the bone conduction speaker is mounted on the head of the user,

wherein the processor outputs a check signal to the bone conduction speaker to check with the user for the instruction and, when receiving no negative response through the bone conduction microphone, the instruction is finally determined.

9. The system according to claim 7, further comprising:

a communication section for making a call,

wherein the processor instructs the communication section to make a call to a predetermined destination.

10. The system according to claim 7, further comprising:

a memory storing a plurality of programs,

wherein the processor selects one of the programs depending on the instruction and executes the selected program.

11. The system according to claim 10, further comprising:

a communication section for making a call,

wherein the programs include a telephone-calling program including a predetermined message, wherein the telephone-calling program is selected by the processor to make a call to send the predetermined message to a predetermined destination depending on the instruction.

12. The system according to claim 11, further comprising:

a GPS receiver for receiving GPS signals to obtain geographical location information,

wherein the predetermined message with the geographical location information is sent to the predetermined destination.

13. A system comprising an input/output device and a main processing device, which are provided separately from each other, wherein

the input/output device comprises:

a bone conduction microphone for picking up a sound produced in an oral cavity of a user, wherein the bone conduction microphone is mounted on a head of a user; and

a first wireless communication section for communicating with the main processing device, and

the main processing device comprises:

a second wireless communication section for communicating with the input/output device;

a database for retrievably storing a plurality of registered sounds, each of the registered sounds corresponding to a different instruction; and

a processor controlling such that, when inputting an input sound from the input/output device through the second wireless communication section, the database is searched for an instruction corresponding to the input sound and, when the instruction is found, an operation corresponding to the instruction is performed.

14. A system comprising an input/output device and a main processing device, which are provided separately from each other, wherein

the input/output device comprises:

a bone conduction microphone for picking up a sound produced in an oral cavity of a user, wherein the bone conduction microphone is mounted on a head of a user;

a database for retrievably storing a plurality of registered sounds, each of the registered sounds corresponding to a different instruction; and

a first processor controlling such that, when inputting an input sound from the bone conduction microphone, the database is searched for an instruction corresponding to the input sound; and

a first wireless communication section for sending the instruction to the main processing device, and

the main processing device comprises:

a second wireless communication section for receiving the instruction from the input/output device; and

a second processor controlling such that, when inputting the instruction from the input/output device through the second wireless communication section, an operation corresponding to the instruction is performed.

15. The system according to claim 13, wherein the main processing device further comprises:

a memory storing a plurality of programs including a telephone-calling program having a predetermined message therein; and

a communication section for making a call using a public network,

wherein the telephone-calling program is selected by the processor to make a call to send the predetermined message to a predetermined destination depending on the instruction.

16. The system according to claim 14, wherein the main processing device further comprises:

a memory storing a plurality of programs including a telephone-calling program having a predetermined message therein; and

a communication section for making a call using a public network,

wherein the telephone-calling program is selected by the second processor to make a call to send the predetermined message to a predetermined destination depending on the instruction.

17. The system according to claim 15, wherein the main processing device further comprises:

a GPS receiver for receiving GPS signals to obtain geographical location information,

wherein the predetermined message with the geographical location information is sent to the predetermined destination.

18. The system according to claim 16, wherein the main processing device further comprises:

a GPS receiver for receiving GPS signals to obtain geographical location information,

wherein the predetermined message with the geographical location information is sent to the predetermined destination.

19. An input/output device comprising:

a bone conduction microphone for picking up a sound produced in an oral cavity of a user, wherein the bone conduction microphone is mounted on a head of a user;

a database for retrievably storing a plurality of registered sounds, each of the registered sounds corresponding to a different instruction;

a processor controlling such that, when inputting an input sound from the bone conduction microphone, the database is searched for an instruction corresponding to the input sound; and

an interface to an external information processing device, for sending the instruction to the external information processing device.

20. The input/output device according to claim 19, further comprising:

a bone conduction speaker for producing bone conduction vibrations, wherein the bone conduction speaker is mounted on the head of the user,

wherein a sound signal received from the external information processing device through the interface is output to the bone conduction speaker which converts it into bone conduction vibrations.

IX. EVIDENCE APPENDIX

No evidence was submitted in this case under 37 C.F.R. 1.130, 1.131, or 1.132, and no evidence was entered separately by the Examiner.

X. RELATED PROCEEDINGS APPENDIX

No decisions have been rendered in any court or by the Board in a related appeal or interference.

Respectfully submitted,

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